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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding Policies,
Procedures and Rules for Development of
Distribution Resources Plans Pursuant to Public
Utilities Code Section 769.

(U39E)

Rulemaking 14-08-013
(Filed August 14, 2014)

And Related Matters.

A.15-07-002
A.15-07-003
A.15-07-006

(NOT CONSOLIDATED)

In the Matter of the Application of PacifiCorp
(U901E) Setting Forth its Distribution Resource
Plan Pursuant to Public Utilities Code Section 769.

A.15-07-005
(Filed July 1, 2015)

And Related Matters.

A.15-07-007
A.15-07-008

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E)
LNBA INTERIM REPORT PURSUANT TO ORDERING PARAGRAPH 18
OF D.17-09-026**

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Dated: January 31, 2018

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Pursuant to Ordering Paragraph 18 of Decision (D.) 17-09-026, Pacific Gas and Electric Company provides its interim report documenting progress towards system-wide Locational Net Benefit Analysis (LNBA) implementation. The LNBA Interim Report is attached as Appendix A.

Respectfully submitted,

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Appendix A

PG&E's LNBA Interim Report

January 31, 2018

This Locational Net Benefits Analysis (LNBA) Interim Report provides a status update on Pacific Gas and Electric Company's (PG&E) progress towards implementing a system-wide LNBA, as required by D.17-09-026¹ and as described in PG&E's LNBA Workplan filed on November 6, 2017. Pursuant to that Decision, PG&E provides an update on the following:

- Progress towards Implementation;
- Progress towards expanding the spreadsheet tool;
- Status of the 2017-2018 Planning Process and Candidate Deferral Identification; and
- Unforeseen issues or delays.

PG&E continues to support the development and implementation of the LNBA. LNBA, if implemented appropriately to ensure that any benefits identified are realizable and any compensation provided is non-duplicative, can enhance California's ability to leverage grid infrastructure at least-cost to support growth and expansion of DERs.

Progress Towards Implementation

For Reference PG&E's Implementation Plan is summarized in the following timeline, which was provided in PG&E's 11/6/2017 Workplan, with an indicator of the current point in the timeline:

¹ Ordering Paragraph 18.

High Level Task / Milestone	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
File and Serve work plan "System-wide LNBA Implementation For Deferral Framework" (11/6/2016)	▲				
Track 3 Decision Provides Guidance on Deferral Screens (Estimated Date: 12, 31 2017)		▲			
Track 1 Decision provides Long-Term LNBA Refinement Guidance (Estimated Date: 3/31/2018)			▲		
Develop processes and tools to calculate DER solution requirements to defer identified distribution upgrade investments (estimated completion: Q2 2018)					
Develop Heat Map IT Platforms (estimated completion: Q2 2018)					
Engage with E3 on LNBA Tool Refinements underway through EPIC project EPC-17-004 (estimated completion in 2019)					
Apply Deferral Screens to Identified Distribution Upgrade Investments to yield list of potential deferral opportunities for incremental DER sourced through Deferral Framework (estimated completion: Q2 2018)					
Execute Deferral Framework-related long-term LNBA Refinements Related to Improvements to tool functionality for DER Solution Providers (estimated completion: Q2 2018)					
Execute Deferral Framework-related long-term LNBA Refinements Related to Generation Avoided Costs (Energy, Generation Capacity) (estimated completion: Q3 2018)					
Execute Deferral Framework-related long-term LNBA Refinements Related to Distribution Deferral Calculations (Loss Factors, VAR Profiles) (estimated completion: Q3 2018)					
Interim Status Update on "System-wide LNBA Implementation for Deferral Framework" (1/31/2018)		▲			
Calculate DER Solution requirements to defer potential deferral opportunities for public tool (estimated completion: Q3 2018)					
Calculate indicative values for potential deferral opportunities using public tool for display on public heat map (estimated completion: Q3 2018)					
Post public tool and heat map (estimated completion: Q3 2018)					
Apply Indicative LNBA Values to prioritize Deferral Opportunities for Sourcing through Deferral Framework (estimated completion: Q4 2018)					

Work that can be done "absent guidance on deferral screens and long-term refinements"	
Work that depends on guidance on Deferral Screens	
Work that depends on guidance on long-term refinements	
Work that depends on both long-term refinements and deferral screens guidance	

Consistent with the proposed timeline, progress on each workplan item that is shaded for Q1 2016 is described below:

Develop processes and tools to calculate DER solution requirements to defer identified distribution upgrade investments:

PG&E has created a cross functional team to coordinate the creation and flow of LNBA-related information from the asset management organization, which does the technical planning analysis. This team meets regularly and to-date has focused on creating internal data templates, timelines and confirming roles and responsibilities to help ensure this information is available with sufficient time to calculate LNBA results in time for the expected DDOR filing date.

Develop Heat Map IT Platforms:

PG&E plans to update the current RAM map platform to adopt the maps created by the demonstration projects. Coordination with IT department is ongoing to see if there is opportunity to migrate to the enhanced ESRI platform similar to the other IOUs. A final determination on heat map platform is expected in Q2. LNBA data and heat maps will likely leverage the enhanced capabilities of an ICA platform that is currently being built.

Engage with E3 on LNBA Tool Refinements underway through EPIC project EPC-17-004:

Most E3 work to-date under this EPIC project has been on developing a storage dispatch module; however, for the remainder of Q1, E3 will transition to updating LNBA methods and enabling batch processing for analyzing a larger number of deferral opportunities. PG&E has had several planning meetings with E3, and is working to provide proxy distribution deferral data to develop the batch processing capability. Actual deferral opportunity data from the 2017-2018 distribution planning process must be completed in July to ensure this capability is functional in time for the August, 2018 DDOR filing. As noted under the planning process status report below, this final data and the resulting indicative LNBA values in time for the August 1 DDOR filing will be a challenge.

The project team has focused on streamlining the LNBA calculations for batch processing rather than methodological refinements, since a final decision on long-term LNBA refinements has not been made, as discussed below.

Apply Deferral Screens to Identified Distribution Upgrade Investments to yield list of potential deferral opportunities for incremental DER sourced through Deferral Framework:

PG&E's LNBA team is regularly engaged with the asset management team as they work through the distribution planning process in order to identify deferrable distribution upgrades under the assumption that the deferability screens proposed in the Track 3 Proposed Decision will be adopted.

Execute Deferral Framework-related long-term LNBA Refinements Related to Improvements to Tool Functionality for DER Solution Providers

PG&E has not yet begun this subset of tool refinements in advance of the Track 1 decision on long-term refinements; however, the joint IOUs have scheduled a meeting to discuss this work and develop an execution plan.

IOU/E3 Progress Towards Expanding the Spreadsheet Tool

The LNBA Public Tool, approved by D.17-09-026, is based on a spreadsheet tool that calculates the estimated avoided costs that DER non-wires alternatives may capture. However, the contents and methodologies to be included in the spreadsheet tool are still under consideration through the Long-Term Refinements discussions in Track 1 of the DRP proceeding. A Final Working Group Report on LNBA Long-Term Refinements was issued on January 8th. It is anticipated that there will be an opportunity to comment on the LNBA Final Working Group Report, followed by a Decision by the end of Q1 2018. Spreadsheet tool expansion will commence upon issuance of the Track 1 Decision.

Status of 2017-2018 planning process and Candidate Deferral identification

In the Track 3 Proposed Decision, the Distribution Investment Deferral Framework would require PG&E to file a Grid Needs Assessment (GNA) by May 1st and Distribution Deferral Opportunity Report (DDOR) by August 1st, 2018. The Joint Investor-owned Utility (IOU) comments have requested that the Track 3 Decision allow flexibility in the implementation timeline of these deliverables, as this is the first year of the DIDF process.

Assuming no change is made to the Track 3 PD, the deliverables specified in PG&E's LNBA Work Plan, filed 11/6/2017, may need to be adjusted to meet the 2018 DIDF filings. The due date for the GNA and DDOR align generally with the PG&E Work Plan, with the exception of the specific requirement to "Apply Indicative LNBA Values to prioritize Deferral Opportunities for Sourcing through Deferral Framework", which was estimated for completion by Q4 2018. This estimated due date will need to be pulled forward to Q3 2018 to align with the DDOR Filing.

For the potential deferral projects for 2018, the interim work required for calculating DER Solution requirements to defer potential deferral opportunities for the public tools include: 1) enhancement of tools and process for expanding the load forecast dataset to produce frequency and duration requirements; and 2) develop tools and processes to break out the grid needs between "baseload" and "peaking" requirement as well as define restriction times for load increase/decreasing. The interim work required for applying indicative LNBA values to prioritize Deferral Opportunities for Sourcing through Deferral Framework will include: 1) process for calculating LNBA from DER Solution requirements, 2) developing algorithm for prioritizing candidate deferral projects, and 3) develop process for sense checking and adjusting ranking order of candidate deferral projects.

In addition, a separate data analysis team, has been developing new tools to help evaluate DER market potential within a small geographic area to provide information useful in the deferral project prioritization process, as discussed in the Track 3 PD.

Unforeseen Issues or Delays

PG&E has not encountered internal issues or delays. However, as highlighted in our November 6th LNBA Implementation Workplan, there are dependencies with the anticipated Track 1 Decision on LNBA Long-Term Refinements and the Track 3 Decision on Distribution Investment Deferral Framework. While PG&E has commenced implementation to the extent feasible prior to the issuance of these Decisions, the implementation timeline may need to be adjusted if these Decisions are delayed significantly.